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A4B22BANANA FLOUR OR MEAL, AND OTHER COMMERCIAL FOOD PRODUCTS
FROM THE BANANASelected References and Patents Covering Preparation,
Uses, PropertiesCompiled by J. A. LeClerc and V. A. Pease,
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The banana is a tropical or subtropical fruit. Most of the banana products on the market were prepared originally by natives of tropical countries by age-old methods. Modern methods used to some extent in the manufacture of these products are simply adaptations of factory equipment to take the place of hand operations, and thus increase production to meet increased demand. Numerous patents have been issued by several companies which describe methods or equipment for the production of various banana products. Patent rights on some of these have expired. Whether any of those cited are in active use at the present time is not known to the writers.

There are two types of banana products, distinguished by the maturity of the raw fruit from which they are prepared. Banana products from plantains or from unripe bananas contain carbohydrates in the form of starch. Those from fully ripened fruit contain sugars and very little starch. "Banana sugar" is powdered ripe banana. Banana meal is usually made from unripe bananas. Banana flour usually indicates ripe bananas as source material, but the term is used by some writers when speaking of a green banana product.

The following table shows the approximate composition of banana powders as prepared from fruit of different maturities:

	<u>Unripe</u> Green peel %	<u>Ripe</u> Full yellow peel %	<u>Ripe</u> Yellow speckled peel %
Water	12.08	3.80	2.59
Total Protein (N x 6.25)	4.85	4.18	4.09
Crude Fat (ether extract)	0.61	2.01	1.91
Starch	69.35	29.87	29.87
Reducing Sugars (as invert)	0.95	17.72	15.62
Non-reducing Sugars (sucrose) ..	2.28	26.83	33.25
Ash	3.09	3.07	3.05
Undetermined (tannins, crude fiber, etc.)	6.79	12.52	9.62
	100.00	100.00	100.00

The literature on the nutritive and therapeutic properties of the banana is quite extensive, and much more easily available than articles on banana products. For these reasons, only those articles are listed that deal directly with manufactured dietary preparations from the banana.

Many of the articles describing the preparation of banana products have been written in languages other than English, or have been published in journals of limited circulation in the United States. To bring certain of these to the attention of American inquirers, abstracts are cited, especially when found in such widely distributed abstract journals as Biological Abstracts, Chemical Abstracts, and the Experiment Station Record.

The references cited in the following bibliography may be consulted in comprehensive public and technical libraries. Patents are obtainable from the Commissioner of Patents, United States Patent Office, Washington, D. C., at a price of ten (10¢) cents per copy for domestic patents and twenty (20¢) cents per page for photostatic copies of foreign patents (stamps not accepted; coin used at risk of sender).

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